

IN THE CLAIMS

Kindly amend the claims as follows:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (canceled)
6. (canceled)
7. (canceled)
8. (canceled)

9. (previously presented) An optical glass having optical constants of a refractive index (nd) within a range from 1.49 to 1.6, comprising, in mass %,

P ₂ O ₅	4 - 39%
Al ₂ O ₃	0 - 9%
MgO	0 - 5%
CaO	0 - 6%
SrO	0 - 9%
BaO	0 - 10%

Y₂O₃+La₂O₃+Gd₂O₃+Yb₂O₃ in the total amount of 0 - 20%

Where

Y ₂ O ₃	0 - 10%
La ₂ O ₃	0 - 10%
and	
Yb ₂ O ₃	0 - 10%
TiO ₂	0 - 0.1%
SnO ₂	0 - 1%
As ₂ O ₃	0 - 0.5%
Sb ₂ O ₃	0 - 0.5%
AlF ₃	0 - 29%
MgF ₂	0 - 8%
CaF ₂	0 - 27%
SrF ₂	0 - 27%
BaF ₂	10 - 47%
YF ₃	0 - 10%
LaF ₃	0 - 10%
GdF ₃	0 - 10%
LiF	0 - 3%

NaF 0 - 0.1%

KF 0 - 1 %

the total amount of F in one or more of the fluorides being 22 - 45% and the total amount of one or more of MgF₂, CaF₂, SrF₂ and BaF₂ being 30 - 70%.

10. (previously presented): An optical glass as defined in claim 9 wherein an amount of change in refractive index (Δn : difference in refractive index between a state before radiation and a state after radiation) caused by radiation of laser beam at wavelength of 351nm having average output power of 0.43W, pulse repetition rate of 5kHz and pulse width of 400ns for one hour is 5 ppm or below.

11.(previously presented): An optical glass having optical constants of an Abbe number (ν_d) within a range from 69 to 82, comprising, in mass %,

P₂O₅ 4 - 39%

Al₂O₃ 0 - 9%

MgO 0 - 5%

CaO 0 - 6%

SrO 0 - 9%

BaO 0 - 10%

Y₂O₃+La₂O₃+Gd₂O₃+Yb₂O₃ in the total amount of 0 - 20%

Where

Y₂O₃ 0 - 10%

La₂O₃ 0 - 10%

and

Yb₂O₃ 0 - 10%

TiO₂ 0 - 0.1%

SnO₂ 0 - 1%

As₂O₃ 0 - 0.5%

Sb₂O₃ 0 - 0.5%

AlF₃ 0 - 29%

MgF₂ 0 - 8%

CaF₂ 0 - 27%

SrF₂ 0 - 27%

BaF₂ 10 - 47%

YF₃ 0 - 10%

LaF₃ 0 - 10%

GdF₃ 0 - 10%

LiF 0 - 3%

NaF 0 - 0.1%

KF 0 - 1%

the total amount of F in one or more of the fluorides being 22-45% and the total amount of one or more of MgF₂, CaF₂, SrF₂ and BaF₂ being 30 - 70%.

12. (previously presented): An optical glass as defined in claim 11 wherein an amount of change in refractive index (Δn : difference in refractive index between a state before radiation and a state after radiation) caused by radiation of laser beam at wavelength of 351nm having average output power of 0.43W, pulse repetition rate of 5kHz and pulse width of 400ns for one hour is 5 ppm or below..

13. (previously presented): An optical glass having optical constants of an Abbe number (ν_d) within a range from 95.1 to 97.1, comprising, in mass %,

P₂O₅ 4 - 39%

Al₂O₃ 0 - 9%

MgO 0 - 5%

CaO 0 - 6%

SrO 0 - 9%

BaO 0 - 10%

Y₂O₃+La₂O₃+Gd₂O₃+Yb₂O₃ in the total amount of 0 - 20%

Where

Y₂O₃ 0 - 10%

La₂O₃ 0 - 10%

and

Yb₂O₃ 0 - 10%

TiO₂ 0 - 0.1%

SnO₂ 0 - 1%

As₂O₃ 0 - 0.5%

Sb₂O₃ 0 - 0.5%

AlF₃ 0 - 28.3%

MgF₂ 0 - 8%

CaF₂ 0 - 27%

SrF₂ 0 - 27%

BaF₂ 10 - 47%

YF₃ 0 - 10%

LaF₃ 0 - 10%

GdF₃ 0 - 10%

LiF 0 - 3%

NaF 0 - 1%

KF 0 - 1%

the total amount of F in one or more of the fluorides being 10 - 45% and the total amount of one or more of MgF_2 , CaF_2 , SrF_2 and BaF_2 being 30 - 70%.

14. (previously presented): An optical glass as defined in claim 13 wherein an amount of change in refractive index (Δn : difference in refractive index between a state before radiation and a state after radiation) caused by radiation of laser beam at wavelength of 351nm having average output power of 0.43W, pulse repetition rate of 5kHz and pulse width of 400ns for one hour is 5 ppm or below.

15. (currently amended): A method of ~~making~~ providing an optical glass for lenses of an optical system of an i-line stepper, said method comprising ~~employing an~~ providing in said i-line stepper a lens made from an optical glass comprising, in mass %,

P_2O_5 4 - 39%

Al_2O_3 0 - 9%

MgO 0 - 5%

CaO 0 - 6%

SrO 0 - 9%

BaO 0 - 10%

$Y_2O_3+La_2O_3+Gd_2O_3+Yb_2O_3$ in the total amount of 0 - 20%

Where

Y_2O_3 0 - 10%

La_2O_3 0 - 10%

Gd_2O_3 0-20%

and

Yb_2O_3 0 - 10%

TiO_2 0 - 0.1%

SnO_2 0 - 1%

As_2O_3 0 - 0.5%

Sb_2O_3 0 - 0.5%

AlF_3 0 - 29%

MgF_2 0 - 8%

CaF_2 0 - 27%

SrF_2 0 - 27%

BaF_2 10 - 47%

YF_3 0 - 10%

LaF_3 0 - 10%

GdF_3 0 - 10%

LiF 0 - 3%

NaF 0 - 1%

KF 0 - 1%

the total amount of F in one or more of the fluorides being 10 - 45% and the total amount of one or more of MgF_2 , CaF_2 , SrF_2 and BaF_2 being 30 - 70%.